

# Luke Whitaker

## Mechanical Engineer

Mechanical Engineer with 6+ years of experience in design and manufacturing of electromechanical systems such as camera gimbals, drone frames, and tether management systems. An expert with 3D CAD programs such as Autodesk Inventor and Solidworks. Self-starter that works well in a fast paced, high stress environment.

## Experience

- 2015-05 - present**      **Senior Mechanical Engineer**  
*Hoverfly Technologies, Inc.*
- Designed high-altitude, high-voltage, heavy-lift tethered aircraft for US government and military customers
  - Completed design and documentation of 3-axis stabilized camera gimbal with Infrared and 10X optical zoom camera
  - Developed revolutionary waterproof tethered UAV system with unique conical landing platform and monolithic design utilizing a single-piece frame/heatsink
  - Invented patent-pending constant-tension tether management system critical to the operation of every tethered drone
  - Oversaw material selection, manufacturing methods and tolerances for all new designs
  - Thrived in a small team under high stress and with a tight budget and timeline to develop next-generation technology

- 2012-09 - 2015-05**      **UAV Lead Mechanical Engineer**  
*Hoverfly Technologies, Inc.*
- Developed world's first commercially available tethered UAV for use in Public Safety and Surveillance applications
  - Invented patent-pending non vision-based UAV navigation system for GPS-denied environments
  - Designed large scale, high-endurance drone capable of flying for 1 hour on a single charge
  - Utilized 3D CAD design, 3D printing, CNC machining and hand-made prototypes

- 2011-09 - 2012-09**      **Mechanical Engineering Internship**  
*Hoverfly Technologies, Inc.*
- Managed production and test flight of custom VTOL UAV systems
  - Designed numerous 3D printed and laser cut parts for custom UAVs
  - Acquired vital knowledge of manufacturing methods, tolerances, and material properties

## Education

- 2010-08 - 2015-05**      **University of Central Florida, Orlando, FL**
- BS in Mechanical Engineering
  - Designed conical twin screw extruder for Senior Design

## Personal Info

### Address

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Orlando, FL 32828

### Phone

(239) 443-0970

### E-mail

lukew1217@gmail.com

### Portfolio

www.lw-portfolio.com

### LinkedIn

www.linkedin.com/in/lukeness17/

## Skills

Product development

Prototyping (3D printing, CNC machining, etc.)

Design for Manufacturability

Testing & Troubleshooting

FMEA

GD&T

## Software

Autodesk Inventor



SolidWorks (CSWA certified)



Autodesk Simulation CFD



Eagle PCB



AutoCAD



Microsoft Office

